

DISCOVER-AQ UC-12 Aerosol Parameters

Sensor	Measurement	Parameter	Unit	Description
HSRL	Aerosol: Optical Properties	1064_aer_dep		Retrieved 1064nm aerosol depolarization ratio.
HSRL	Aerosol: Optical Properties	1064_bsc	km-1 Sr-1	Aerosol volume backscatter coefficient at 1064nm
HSRL	Aerosol: Optical Properties	1064_bsc_cloud_screened	km-1 Sr-1	Aerosol volume backscatter coefficient at 1064nm with cloud mask applied.
HSRL	Aerosol: Optical Properties	1064_bsr		Ratio of Aerosol backscatter coefficient to the molecular backscatter coefficient at 1064nm
HSRL	Aerosol: Optical Properties	1064_bsr_cloud_screened		Backscatter ratio at 1064 nm with cloud mask applied.
HSRL	Aerosol: Optical Properties	1064_dep		Retrieved 1064nm total (volume) depolarization ratio
HSRL	Aerosol: Optical Properties	1064_ext	km-1	Retrieved 1064nm aerosol extinction coefficient.
HSRL	Aerosol: Optical Properties	1064_total_attn_bsc	km-1 Sr-1	Attenuated backscatter coefficient at 1064 nm
HSRL	Aerosol: Optical Properties	1064_total_attn_bsc_cloud_screened	km-1 Sr-1	Attenuated backscatter coefficient at 1064 nm with cloud mask applied
HSRL	Aerosol: Optical Properties	532_aer_dep		Retrieved 532nm aerosol depolarization ratio.
HSRL	Aerosol: Optical Properties	532_bsc	km-1 Sr-1	Aerosol volume backscatter coefficient at 532nm
HSRL	Aerosol: Optical Properties	532_bsc_Sa	km-1 Sr-1	Aerosol volume backscatter coefficient at 532nm averaged to the same horizontal and vertical average as the extinction coefficient
HSRL	Aerosol: Optical Properties	532_bsc_cloud_screened	km-1 Sr-1	Aerosol volume backscatter coefficient at 532nm with cloud mask applied.
HSRL	Aerosol: Optical Properties	532_bsr		Ratio of Aerosol backscatter coefficient to the molecular backscatter coefficient at 532nm
HSRL	Aerosol: Optical Properties	532_bsr_cloud_screened		Backscatter ratio at 532 nm with cloud mask applied.
HSRL	Aerosol: Optical Properties	532_dep		Retrieved 532nm total (volume) depolarization ratio
HSRL	Aerosol: Optical Properties	532_ext	km-1	Retrieved 532nm aerosol extinction coefficient.
HSRL	Aerosol: Optical Properties	532_total_attn_bsc	km-1 Sr-1	Attenuated backscatter coefficient at 532 nm



HSRL	Aerosol: Optical Properties	532_total_attn_bsc_cloud_screened	km-1 Sr-1	Attenuated backscatter coefficient at 532 nm with cloud mask applied
HSRL	Aerosol: Optical Properties	AOT_hi		532nm Aerosol optical thickness as a function of altitude as determined from the molecular signal.
HSRL	Aerosol: Optical Properties	AOT_hi_col		532nm Aerosol optical thickness as a function of altitude as determined from the molecular signal.
HSRL	Aerosol: Optical Properties	Altitude		Altitude vector in which all the data is interpolated to in the raw data and science data products
HSRL	Aerosol: Optical Properties	Angstrom_Dust		Angstrom coefficient of dust particles
HSRL	Aerosol: Optical Properties	Angstrom_Spherical		Angstrom coefficient of spherical particles calculated
HSRL	Aerosol: Optical Properties	DEM_altitude		Ground altitude based on the GLOBE Digital Elevation Map dataset based on the GPS latitude and longitude values.
HSRL	Aerosol: Optical Properties	Dust_Mixing_Ratio		Dust mixing ratio
HSRL	Aerosol: Optical Properties	Sa_532	Sr	Retrieved Extinction-to-backscatter ratio at 532nm
HSRL	Aerosol: Optical Properties	cloud_top_height		Cloud identification flag and cloud height information
HSRL	Aerosol: Optical Properties	1064_aer_depol_unc		Uncertainty of Retrieved 1064nm aerosol depolarization ratio.
HSRL	Aerosol: Optical Properties	1064_bsc_unc	km-1 Sr-1	Uncertainty of Aerosol volume backscatter coefficient at 1064nm
HSRL	Aerosol: Optical Properties	532_aer_depol_unc		Uncertainty of Retrieved 532nm aerosol depolarization ratio.
HSRL	Aerosol: Optical Properties	532_bsc_unc	km-1 Sr-1	Uncertainty of Aerosol volume backscatter coefficient at 532nm
HSRL	Aerosol: Optical Properties	532_ext_unc	km-1	Uncertainty of Retrieved 532nm aerosol extinction coefficient.
HSRL	Aerosol: Optical Properties	sa_unc	Sr	Uncertainty of Retrieved Extinction-to-backscatter ratio at 532nm
HSRL	Aerosol: Optical Properties	WVD_1064_532_unc		Uncertainty of Retrieved wavelength dependence based on the aerosol backscatter coefficient at 1064 and 532nm.

